

Sulina 10236  
C&D

Dear Mr. Towle - EPA Region III

April 10, 1989

Although I witnessed the calibration of Hart's Orion Research probe, I still have reservations about the accuracy of the pH readings of 4.1 and 4.2 of our water. This is particularly curious as the two pH paper readings were approximately 5.

It is also quite odd that the pH papers coincided with Hart's meter readings when solutions of 7 and 4 pH were used for calibration and were also in basic agreement with the vinegar test.

Our well pH levels have ranged between 5.1/5.2 and 6 in the past. In fact, the October 1988 sampling event evidenced a 5.5 pH. Therefore this dramatic drop in pH on Hart's meter concerns me, especially when approximately eight points difference exists after the other tests were in agreement.

The electrodes on this machine looked discolored. Are the electrodes made of glass or plastic? I also really thought that the cup Hart used was glass because of touch and the dried residue at the bottom looked more like what would dry in plastic than in glass. Was the cup hard clear plastic or glass and what was residue in bottom?

The pH meter was sensitive to temperature by Hart's admission. Although Hart did not take thermometer readings of the standardization solutions, there had to be a temperature

AR500981

4/10/89

2

Selina  
C & D

difference between the pH solutions and the well water. Did this or could this affect results?

Also I did not see Hart employees fix the samples with nitric acid. Did you witness any of the samples being fixed? If so - when, where, with what and how much?

Another point I'd like to bring to your attention is split sampling.

My attorney requested, through me, that he receive split samples. When I relayed this message last year I was told several weeks notification had to be given. So I told Jim Blasting during the June, 1988 sampling of my attorney's request. I saw Mr. Blasting write it down.

When I asked for the split samples on April 3, 1989 Hart Associates then told me I'd have to supply the glass bottles. I view these answers as inconsistent and a lack of cooperation on Hart's part. Why wasn't I told this in the beginning so I could have been prepared with proper containers?

I am especially annoyed with these answers after my husband lost a day's work to cooperate with AT&T/Hart on September 26, 1988. We were told by Ms. Smith (AT&T) that Procter <sup>and</sup> Gamble Laboratories were to perform tests with their soap products to see AR500982

4/10/89

3

Sulina  
C + D

if and why water turned blue. When Hart arrived they insisted a Procter & Gamble soap be used in the water. When we finally got the results exhibiting 115 p.p.b's of lead and 4,970 p.p.t. of copper, a statistical outlier, pH of 4.74 we saw the tests were performed by Compu Chem. It was also suggested at that time not to drink the water and that the groundwater was reacting with the plumbing.

I'd like to point out that the water had not lain in the pipes for more than an hour prior to Hart's arrival in September as no one said not to use the water. We also do not have a hot water tank, merely a heating coil. Two or three demonstrations were done for Hart and the water was run long enough each time to get hot for the demonstrations. Then Hart took the samples. We were not offered split samples nor did my husband see a pH test taken or see those samples "fixed". Of course we were only told the purpose of this test was to see what makes the water turn blue when soap is added. You are aware of the rest of the story.

The temperature <sup>of the water</sup> (4/3/89) was taken by instrument. Was the instrument checked against a simple thermometer? If so where <sup>and</sup> when as I observed no such cross checking?

AR500983

4/10/89

4.

What was the estimate of gallons per minute. Hart brought a large can and was supposed to run water into it to determine g.p.m. but I did not observe this procedure. Was it performed?

Also can you tell me how the conductance was standardized? Was a procedure used or was there a "standard" of some sort used?

Thank you for your patience and time to answer my many questions on April 3rd.

Your continued courtesy and cooperation regarding the above concerns will be most appreciated.

Sincerely,  
Janet Sulima  
647 Welsh Rd.  
Phila. Pa.

CC: Senator John Heinz

19115

Cong. Paul Kanjorski

John Thelaw (PADER)

M. J. Lewis, D.P.E.

A. Slap, esquire

FILE

AR500984